

REMARKS

Claims 1, 9, 13, 21, 25-27, and 43-45 have been amended to correct antecedent basis as indirectly noted in the Office Action and otherwise.

Claim 44 has been amended to correct a typographical error, that is, on line 13, the word "for" has been replaced with the word --with--.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current Amendment. The attached page is captioned "Version with Markings to Show Changes Made."

The 35 U.S.C. § 112 Rejection

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter applicant regards as the invention.

Specifically, the Office Action states first that "network device" and "remote device" are presumed to be equivalent to a single "remote network device". This is not entirely correct and potentially misleading. It is correct that the claim language should read network device rather than remote device. However, it may be confusing to refer to both the client and the network device as being remote. The claim designates that the client is remote from the network device. This implies by contrast that the network device is something other than remote. The actual locations are not critical. The point being that the two are distinct from one another. Claim 1 and others have been amended to correct the situation.

Second, the Office Action states that "network device control software program" and "software program" are presumed to be equivalent. This is essentially correct and claim 1 and others have been amended to correct the situation.

With this amendment, it is respectfully asserted that the claims satisfy the statutory requirements and are in condition for allowance.

The 35 U.S.C. § 103 Rejection

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Hogan et al.* (US 5,778,368) in view of *Palay* (US 5,613,120). Claims 2, 4-15, 17-28, 30-38, 40-43, 45, and 46 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Hogan et al.* (US 5,778,368) in view of *Palay* (US 5,613,120) in further view of *Lindholm* (US 5,859,368). Claim 44 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Hogan et al.* (US 5,778,368) in view of *Palay* (US 5,613,120) in view of *Lindholm* (US 5,859,368) in further view of *Nakagawa et al.* (US 5,832,911). Claims 3, 16, 29, and 39 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over *Hogan et al.* (US 5,778,368) in view of *Palay* (US 5,613,120) in view of *Lindholm* (US 5,859,368) in view of *Nakagawa et al.* (US 5,832,911) in further view of *Gish* (US 5,768,510). These rejections are respectfully traversed.

Specifically, the Office Action states that *Hogan* discloses or suggests most of the claim limitations and that *Palay*, *Lindholm*, *Nakagawa*, and *Gish* disclose or suggest the remaining claim limitations. However, each and every element as set forth in the present claims are not found in or suggested by the cited prior art. Furthermore, the various combinations of elements proposed by the Office Action are never arranged by the cited prior art in the same manner as proposed by the Office Action or as required by the present claims. The laundry list of citations are often incorrect or inconsistent with one another.

In the Responses of the Applicant dated August 15, 2001 and January 25, 2002 various arguments were put forth in the present matter. The Office Action dated May 1, 2002 chooses to attempt to respond directly to only three arguments. This either ignores arguments or improperly lumps separate arguments together. In either case, the Office Action is incomplete. Since the primary reference is still *Hogan*, these arguments continue to substantially apply and are not being withdrawn. The new reference of *Palay* and the three responses of the Office Action will be included in the discussion below.

It is well established, according to M.P.E.P. § 2143.03, that "[t]o establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." The current grounds of rejection presented with respect to claim 1, among others, fails (3) to specifically identify the claimed "network device." Although it is true that *Hogan* discloses a network which contains various devices, it is uncertain as to which of these devices is alleged to be the claimed network device. The rejection is insufficient because it is vague and not all of the devices disclosed by Hogan can qualify as the claimed network device. For example, as noted above, the network device and the client are remote from one another, so at the very least, the claimed network device cannot be the "Repository Client" 8, 9, 11 as disclosed in FIG. 2 of *Hogan*. This is because the Repository Client is not remote from the client as claimed.

Investigating further, one indirect indication of which device is being alleged to be the claimed network device might be discerned in part by the claimed "network device control software program." Realize that according at least to claim 1, the compiled and embedded network control software program is loaded onto the network device. Thus, if one can locate one

then one might locate the other. The Office Action specifically states that *Hogan* discloses "software programs (col. 17, lines 10-41, comprising software program files for controlling network devices, software program files including binary software utility programs, col. 20, lines 34-52, device software code, col. 6, lines 28-32)." However these citations not only do not indicate indirectly what is alleged to be the claimed network device, they do not support the argument of equivalence to the claimed network device control software program as alleged. The first and third citations are to the "Repository Units" which are elsewhere alleged to be equivalent to the claimed "downloadable units." For the Repository Units to be both the claimed network device control software program and the downloadable units, then either the Repository Units would have to be embedded within themselves which is illogical or within each other which is not the case. The second citation is to the "RTES application player" which is located at the Repository Client (see col. 20, lines 21-33 and 63-67). As noted above, the Repository Client is not remote from the client as claimed so neither is the RTES application player. Thus the RTES application player cannot be equivalent to the claimed network device control software program and is not loaded on the claimed network device.

Further, the current grounds of rejection presented with respect to claim 1, among others, fails to disclose the full range of compiled and embedded downloadable units as claimed. The Office Action cites *Palay* as filling the void where "*Hogan* does not explicitly teach embedding software (downloadable unit) into the binary file of a compiled software program." However, *Palay* is limited to object-oriented computer programs. The claimed invention is not so limited. So even if the combination is possible and motivated, the combination is incomplete in comparison to the claimed invention.

Taken together, the result is that the rejection fails to identify the claimed "network device" and to support the allegations of equivalence of the claimed "network device control software program" and the claimed "downloadable units". Consequently, the rejection is not *prima facie* and should be withdrawn.

Turning now to M.P.E.P. § 2141.01 and the field of endeavor and problem of concern test of the cited prior art, the prior art reference of *Palay* is cited for the first time in the Office Action dated May 1, 2002. The present application and the *Hogan* and *Lindholm* references were examined under this test in the Response of the Applicant dated January 28, 2002. There it was concluded that the Applicant's field of endeavor is "computer networks" and the problem of concern is "managing a network device from a remote client." It was also concluded that *Hogan's* field of endeavor is "Repository System[s]" and the problem of concern is "provid[ing] the means to fully characterize, evaluate, and reuse real-time embedded software." It was further concluded that *Lindholm's* field of endeavor is "methods for executing programs" and the problem of concern is "[reducing] the run-time memory space requirements of the code." An examination of *Palay* reveals that "[t]he present invention relates generally to software compilers and linkers, and more particularly to software compilers and linkers for compiling object-oriented computer programs." (Col. 1, lines 11-15) Consequently, *Palay's* field of endeavor is "software compilers and linkers" and the problem of concern is "compiling object-oriented computer programs." One will recognize that the Applicant and each of the three references differ in these regards. Moreover, it is informative to examine these aspects of *Palay* further. First, it is important to note that *Palay* never even uses the term "network." Networks are of no concern to him. This is completely at odds with the Applicant. Second, it is significant to note that *Palay* is not concerned with the function of the software that is being compiled. His

emphasis is on improving the compiling process alone. Furthermore, *Palay* does not specify what type of device will be loaded with the software.

The primary conclusion that can be drawn from the above discussion is that the references are not appropriately combined under § 2141.01. The Office Action dated May 1, 2002 states that

Hogan teaches among many application to his teachings, downloading software, embedded software or a combination of these to remote network target devices, where when said that when executed on remote network target device said device configured on managed by means of said loaded software, as discussed above, in this aspect *Hogan* is found to be in same field of endeavor of instant application.

However, this is unclear and unsupported. The typographical and grammatical errors make the statement almost undecipherable. The gist of the argument appears to be that if the reference is cited then it must be in the field of endeavor. This is circular logic. No direct support from *Hogan* is presented. Since the question of field of endeavor was not discussed previously in the Office Action, any reference to "as discussed above" is meaningless. Further, no response to support the other cited references is presented. The focus of each reference is different from the present application and they are mutually distinct. The rejections should be withdrawn.

Turning now to the motivation to combine the references, there are at least two issues. First, the motivation presented in the Office Action dated July 25, 2001 was refuted in the Response dated January 28, 2002. Although an attempt at a rebuttal is made in the Office Action dated May 1, 2002, the motivation is not repeated in the corresponding rejection. It is therefore assumed that the motivation as previously presented is withdrawn. Second, the withdrawal of the previous motivation leaves the motivation as variously presented in the Office Action dated May 1, 2002. With respect to claim 1, the Office Action states that "motivation would be to

make these units are independent of specific architecture of platform of the computer system where they are to be executed, enabling the modification of class method definitions and implementations without the need for recompilations isolating the classes without imposing performance penalty and without limiting the software language being used." However, as best as can be understood, this motivation would not appear to apply here. First, there is no indication that *Hogan* fails to be platform neutral. There are instances when *Hogan* at least expresses an awareness of the desirability of general applicability. (See col. 8, lines 30-33 for example.) Second, there is no explanation as to how the combination would take *Hogan* from not being platform neutral to being platform neutral. Third, although not quoted directly, the motivation given is really that used by *Palay* to motivate his own invention. For it to potentially apply to the proposed combination, the rejection must first show that *Hogan* is using the prior art system as presented by *Palay*. This is not shown. Fourth, as *Palay* predates *Hogan*, he can not be used to motivate a combination with *Hogan* which came later. Conversely, if in fact *Hogan* and *Palay* can be combined, *Hogan* may have chosen not to make such a combination indicating that the combination may not be desirable. The primary conclusion that can be drawn is that without proper motivation, obviousness has not been established.

Turning now to the issue of whether or not, the repository units of *Hogan* are "embedded" as claimed. The Response of the Applicant dated January 28, 2002 is supposedly rebutted by the Office Action dated May 1, 2002 which states that the arguments are "moot in view of new ground(s) of rejection." How this can be completely the case is unclear. *Hogan* is still the primary reference. One interpretation might be that the form of the rejection allegedly makes one or more of the arguments moot. As currently understood, the rejection cites *Hogan* as disclosing embeddable units, that is, Repository Units that are capable of being embedded but are

not yet embedded by *Hogan*. The rejection goes on to cite *Palay* as disclosing the ability to embed software. Even if this is the case, this continues to fail to answer the question of where they are embedded. This ties back to the issue above regarding the network device control software program and in turn the network device. *Palay* provides no guidance as to where the embedded software resides. The rejection is incomplete and should be withdrawn.

It is also well established, according to M.P.E.P. § 2143.01, that "[i]f proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." As an extension of the above discussion as to where the units are embedded, the question arises as to what if the units are embedded. Recall that *Hogan* notes that by its nature software that has been embedded "...is not visible to the end user because it is completely contained within the product. Such software is also generally not visible to the company that developed it." (Col. 1, lines 20-23) This is what drives him to design his invention to provide visibility to embedded software. If, as might be suggested in response to the question as to where above, the Repository Units were embedded anywhere in FIG. 2 of *Hogan* then they would become *invisible* and thereby destroy the purpose of the invention. The rejections should be withdrawn.

The same inaccuracies and inconsistencies are applied to all of the claims either by reference to the above rejection or by substantially identical citations.

The additional citation of any or all of *Lindholm*, *Nakagawa*, and *Gish* does not remove the above problems. Given these differences, the cited prior art cannot be said to render the

present invention obvious. In view of the above, it is respectfully asserted that the claims are now in condition for allowance.

Request for Allowance

In view of the foregoing, reconsideration and an early allowance of this application are earnestly solicited.

If any matters remain which could be resolved in a telephone interview between the Examiner and the undersigned, the Examiner is invited to call the undersigned to expedite resolution of any such matters.

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Respectfully submitted,
THELEN, REID, & PRIEST LLP



Marc S. Hanish
Reg. No. 42,626

Thelen, Reid, & Priest LLP
P.O. Box 640640
San Jose, CA 95164-0640
(408) 292-5800

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claims 1, 9, 13, 21, 25-27, and 43-45 have been amended as follows:

1. (Amended Three Times) A method for manufacturing a network device comprising the steps of:

obtaining a network device control software program;

obtaining a downloadable unit configured to communicate with the network device control software program for later transmission over a network to a remote client to enable the remote client to remotely configure the network device,

the downloadable unit including

a communicator component for establishing a communications channel between the remote client and the network device control software program,

an interface component for enabling a user to communicate with the downloadable unit, and

a configuration component for managing and configuring the [remote] network device or the network device control software program;

compiling the network device control software program into a binary file;

embedding the downloadable unit into the binary file; and

loading the binary file with the embedded downloadable unit onto the network device.

9. (Amended Once) The method of claim 1, wherein the network device control software program includes the operating system of the network device.

13. (Amended Four Times) A system for managing a network device from a remote client, comprising:

a binary file of a network device control software program stored in the network device;
a downloadable unit embedded in the binary file, for managing the network device,
the downloadable unit including

a communicator component for establishing a communications channel between
the remote client and the network device control software program,

an interface component for enabling a user to communicate with the
downloadable unit, and

a configuration component for managing and configuring the [remote] network
device or the network device control software program;

and

a web server for communicating with the remote client and for transmitting the
[embedded] downloadable unit to the remote client.

21. (Amended Twice) The system of claim 13, wherein the network device control
software program includes an operating system.

25. (Amended Once) The system of claim 13, wherein the network device control
software program includes an extractor for extracting the embedded downloadable unit.

26. (Amended Once) The system of claim 13, wherein the network device control
software program is currently executing on the network device.

27. (Amended Three Times) A system for manufacturing a network device comprising:

- means for obtaining a network device control software program;
- means for obtaining a downloadable unit configured to communicate with the network device control software program for later transmission over a network to a remote client to enable the remote client to remotely configure the network device,
- the downloadable unit including
 - a communicator component for establishing a communications channel between the remote client and the network device control software program,
 - an interface component for enabling a user to communicate with the downloadable unit, and
 - a configuration component for managing and configuring the [remote] network device or the network device control software program;
- means for compiling the network device control software program into a binary file;
- means for embedding the downloadable unit into the binary file; and
- means for loading the binary file with the embedded downloadable unit onto [a] the network device.

43. (Amended Three Times) A system comprising:

- a web server for receiving from a remote client a request to manage a network device control software program which has a binary file with an embedded downloadable unit for performing the request,
- the downloadable unit including
 - a communicator component for establishing a communications channel between the remote client and the network device control software program,

an interface component for enabling a user to communicate with the
downloadable unit, and

a configuration component for managing and configuring the [remote] network
device or the network device control software program;

an extractor coupled to the web server for extracting the downloadable unit from the
binary file; and

a communicator coupled to the extractor for forwarding the downloadable unit to the
remote client.

44. (Amended Four Times) A method for modifying available remote device
management services of a network device, comprising the steps of:

obtaining a new downloadable unit for performing a new service, the new downloadable
unit including

a communicator component for establishing a communications channel between
[the] a remote client and a network device control software program,

an interface component for enabling a user to communicate with the new
downloadable unit, and

a configuration component for managing and configuring the [remote] network
device or the network device control software program;

retrieving the network device control software program binary file having an embedded
old downloadable unit for performing an old service from [a] the network device;

substituting the old downloadable unit [for] with the new downloadable unit; and

loading the network device control software program binary file having the new
downloadable unit onto the network device.

45. (Amended Once) The system of claim 13, wherein the network device control software program includes a list of available functions.